

Election/Restriction

Applicants hereby affirm the provisional election made on 26 August 2002 by Maxwell J. Petersen to prosecute the invention of Group II, Claims 24-50 and 56. Applicants have canceled Claims 1-23 and 51-55 as being drawn to a non-elected invention.

Amendment to the Claims

Applicants have amended Claim 56 into independent form by including limitations from canceled Claim 51 and amending the weight percent ranges of the polymer compositions.

New Claims

Applicants have added new Claims 57-60 which depend from amended Claim 56.

Claim Rejections - 35 U.S.C. §112

Claim 56 has been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for depending from non-elected Claim 51. Applicants have amended Claim 56 into independent form including limitations from canceled, non-elected base Claim 51. Applicants believe that the above Amendment and comments overcome the rejection of Claim 56 under 35 U.S.C. §112.

Claim Rejections - 35 U.S.C. §102

Claims 24-32 and 41-50, have been rejected under 35 U.S.C. §102(b) as being anticipated by WO 98/05501.

Applicants' invention of Claim 24 is a substantially liquid-impermeable laminate having a WVTR of at least 500 grams/m²-24 hours when unstretched in a cross-direction, that can be stretched in the cross-direction to a width at least 25% greater than the unstretched width. The stretched laminate has a WVTR of at least 225% of the unstretched laminate WVTR and not less than 4000 grams/m²-24 hours, coinciding with *a stretched width that is 25% greater than the unstretched width*. Applicants' invention of Claim 41 is a garment including the laminate of Claim 24.

WO 98/05501 teaches films having increased WVTR's at comparable filler loading and thickness by substituting single-site metallocene catalyzed polyethylene for conventional Ziegler-Natta catalyzed polymers. (Page 2, lines 22-28). The single-site metallocene catalyzed polyethylene films provide a higher WVTR than the Ziegler-Natta catalyzed polymer films and therefore require less stretching than the Ziegler-Natta catalyzed polymer films. (Page 10, lines 14-19). However, higher cross-directional stretching ratios of 2:1 to 5:1 are still needed in the films of WO 98/05501 to obtain the desired higher WVTR. (Page 9, lines 13-19).

There is no suggestion that the laminates have a WVTR of at least 500 grams/m²-24 hours before being stretched in the cross direction.

Applicants' stretched film has a WVTR of at least 225% of the unstretched WVTR and not less than 4000 grams/m²-24 hours at a stretched width *that is only 25% greater* than the unstretched width (ratio of 1.25:1). Also, Applicants' laminate has a first WVTR of at least 500 grams/m²-24 hours before any stretching in the cross-direction occurs.

WO 98/05501 teaches cross-directional stretching ratios of 2:1 to 5:1 to obtain the desired film WVTR. The stretching ratios disclosed in WO 98/05501 are considerably higher than Applicant's cross-direction stretching ratio of 1.25:1, at which Applicant's laminate has a WVTR of at least 225% of the unstretched WVTR (at least 500 grams/m²-24 hours) and not less than 4000 grams/m²-24 hours. WO 98/05501 does not teach or suggest a substantially liquid-impermeable laminate having a WVTR of at least 500 grams/m²-24 hours when unstretched in a cross-direction, which can be stretched in the cross-direction to obtain a WVTR of at least 225% of the unstretched WVTR and not less than 4000 grams/m²-24 hours, coinciding with a stretched width that is 25% greater than the unstretched width as in Applicants' Claims 24 and 41. Therefore, WO 98/05501 does not anticipate

Applicants' invention of Claims 24 and 41. Claims 25-32 and 42-50 depend from either Claims 24 and 41, and are patentable for at least the same reasons as above.

In addition, Applicants' inventions of Claims 29-32 include polymer combinations for the film of the laminate in Claim 24. WO 98/05501 does not teach or suggest that the use of these claimed polymer combinations can be used to make a film for a substantially liquid-impermeable laminate that has a first WVTR of at least 500 grams/m²-24 hours before stretching in the cross-direction, and a direction substantially higher WVTR when stretched by only 25% in a cross direction. Therefore, WO 98/05501 does not anticipate Applicants' Claims 29-32, for this additional reason.

Claim Rejections - 35 U.S.C. §103

Claims 24, 36-38, 41-50, and 56 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kobylivker et al. (U.S. Patent 6,002,064) in view of WO 98/05501.

As discussed above, WO 98/05501 does not teach or suggest a film or laminate having a WVTR of at least 500 grams/m²-24 hours when unstretched, that can be stretched in a cross-direction to provide a WVTR of at least 225% of the unstretched WVTR and not less than 4000 grams/m²-24 hours at a stretched width that is 25% greater than the unstretched width.

Kobylyvker et al. teaches a stretched-thinned breathable film. Kobylyvker et al. teaches that the breathability of the film is dependent on, at least in part, film thickness. (Column 7, lines 18-21). The film can be stretched in the machine direction from about 1.1 to 7.0 times the original length and more preferably 2.5-5.0 times the original length. (Column 7, lines 25-30). Kobylyvker et al. thus teaches higher stretching ratios that lead to lower thickness and an increased WVTR. Applicants' invention obtains a high WVTR at a low cross-direction stretching ratio of 1.25:1. Kobylyvker et al. does not teach or suggest a film or laminate having a WVTR of at least 225% of the unstretched WVTR and not less than 4000 grams/m²-24 hours at a stretched width in the cross-direction that is 25% greater than the unstretched width in the cross-direction.

As both WO 98/05501 and Kobylyvker et al. teach higher stretching to obtain a desired WVTR, one skilled in the art would find no motivation in either reference to obtain a WVTR as claimed by Applicants in Claims 24 and 41 at a cross-direction stretching of 25% greater than the unstretched width. There is no suggestion or motivation in either WO 98/05501 or Kobylyvker et al. to obtain a substantially liquid-impermeable laminate having a WVTR of at least 500 grams/m²-24 hours when unstretched in a cross-direction, that can be stretched in the cross-direction to provide a stretched laminate having a WVTR of at least 225% of the unstretched WVTR and

not less than 4000 grams/m²-24 hours, coinciding with a stretched width *that is 25% greater than the unstretched width*, as in Applicants' Claims 24 and 41. As both WO 98/05501 and Kobylivker et al. teach stretching ratios greater than Applicants' to obtain desired WVTR's, adding the materials in Kobylivker et al. to WO 98/05501 would still result in a film or laminate suggesting greater stretching to obtain desired WVTR's, and not Applicants' laminate which provides much higher WVTR's at a low stretching ratio. Claims 36-38 and 42-50 depend from one of Claims 24 and 41 and are patentable for at least the same reasons as above.

The laminate of Applicants' amended Claim 56 includes a film having about 10-50% by weight of the total polymer weight being a single-site catalyzed very low density polyethylene and about 50-90% by weight of the total polymer weight being a Ziegler-Natta catalyzed linear low density polyethylene. WO 98/05501 generally teaches *substituting* single-site metallocene catalyzed polyethylene for conventional Ziegler-Natta catalyzed polymers. WO 98/05501 does disclose that other materials, including Ziegler-Natta catalyzed polymers, can be blended into the single-site metallocene catalyzed polyolefins to form films. (Page 10, lines 20-25). However, WO 98/05501 teaches that the total polymer content of the film must contain at least 50 weight percent of a single-site metallocene catalyzed polyolefin so

as not to substantially lower the WVTR of the film. (Page 10, line 27- Page 11, line 3).

WO 98/05501 teaches that blending Ziegler-Natta catalyzed polymers into the films lowers the overall WVTR and teaches away from including Ziegler-Natta catalyzed polymers in a amount greater than 50 weight percent of the total polymer. Applicants have discovered that films including Ziegler-Natta catalyzed polyethylenes in an amount greater than 50 weight percent of the total polymer and single-site catalyzed polyethylenes can be used in laminates that have a substantially increased WVTR when stretched in the cross-direction by 25%. One skilled in the art would find no suggestion or motivation in WO 98/05501 or Kobylivker et al. to form a laminate including a film including a total polymer weight including 50-90 weight percent Ziegler-Natta catalyzed polyethylene and 10-50 weight percent single site catalyzed polyethylene. New Claims 57-60 depend from Claim 56 and are patentable for at least the same reasons as above.

Allowable Subject Matter

Claims 33-35, 39, and 40 were not rejected by the Examiner under cited prior art. Applicants assert that Claims 33-35, 39 and 40 are allowable over the prior art of record.

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Conclusion

Applicants intend to be fully responsive to the outstanding Office Action. If the Examiner detects any issue which the Examiner believes Applicants have not overcome in this response, Applicants' undersigned attorney requests a telephone interview with the Examiner.

Applicants sincerely believe that this Patent Application is now in condition for allowance and, thus, respectfully request early allowance.

Respectfully submitted,



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Marked-up Version Showing Changes Made

In the Claims:

56. A laminate comprising [the film of Claim 51];

a substantially liquid-impermeable breathable film that is extendible in a cross-direction to a stretched width that is at least 25% greater than an unstretched width upon application of a stretching force;

the film comprising a filled layer which includes about 10-55% by volume of a particulate filler and about 45-90% by volume of total polymer;

the total polymer including about 10-50% by weight of a single-site catalyzed very low density polyethylene and about 50-90% by weight of a Ziegler-Natta catalyzed linear low density polyethylene; and

a nonwoven web.